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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Pro Patent Application of

LAFONT et al.

Atty. Ref.: 1721-108

Serial No. 10/561,238

Group: Unknown

Filed: December 19, 2005

Examiner: Unknown

For: PLATFORMS, PARTICULARLY PROSTHESES, HAVING BIOLOGICALLY ACTIVE COVERINGS

\* \* \* \* \*

May 31, 2006

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1540

Sir:

**SUBMISSION**

Submitted herewith is the English translation of the International Preliminary Examination Report issued in the corresponding PCT/FR2004/001528.

Respectfully submitted,

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# TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS

## PCT

### RAPPORT PRÉLIMINAIRE INTERNATIONAL SUR LA BREVETABILITÉ (chapitre I du Traité de coopération en matière de brevets)

(règle 44bis du PCT)

Référence du dossier du déposant ou du mandataire CP61017	<b>POUR SUITE À DONNER</b>	Voir le point 4 ci-dessous
Demande internationale no. PCT/FR2004/001528	Date du dépôt international ( <i>jour/mois/année</i> ) 18 June 2004 (18.06.2004)	Date de priorité ( <i>jour/mois/année</i> ) 19 June 2003 (19.06.2003)
Classification internationale des brevets (8 <sup>e</sup> édition, sauf indication d'une édition antérieure) Voir les informations pertinentes dans le formulaire PCT/ISA/237		
Déposant UNIVERSITE PARIS 5		

1. Le présent rapport préliminaire international sur la brevetabilité (chapitre I) est établi par le Bureau international au nom de l'administration chargée de la recherche internationale selon la règle 44bis.1.a).

2. Ce RAPPORT comprend un total de 7 feuilles, y compris la présente feuille de couverture.

Dans les feuilles jointes, toute référence à l'opinion écrite de l'administration chargée de la recherche internationale doit être entendue, à la place, comme une référence au rapport préliminaire international sur la brevetabilité (chapitre I).

3. Le présent rapport contient des indications relatives aux points suivants :

- |                                     |               |   |
|-------------------------------------|---------------|---|
| <input checked="" type="checkbox"/> | Cadre n° I    | Base de l'opinion   |
| <input type="checkbox"/>            | Cadre n° II   | Priorité  |
| <input type="checkbox"/>            | Cadre n° III  | Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle  |
| <input type="checkbox"/>            | Cadre n° IV   | Absence d'unité de l'invention  |
| <input checked="" type="checkbox"/> | Cadre n° V    | Déclaration motivée selon l'article 35.2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration |
| <input type="checkbox"/>            | Cadre n° VI   | Certains documents cités  |
| <input checked="" type="checkbox"/> | Cadre n° VII  | Certaines irrégularités relevées dans la demande internationale   |
| <input checked="" type="checkbox"/> | Cadre n° VIII | Certaines observations relatives à la demande internationale  |

4. Le Bureau international communiquera le présent rapport aux offices désignés conformément aux règles 44bis.3.c) et 93bis.1 mais pas avant l'expiration du délai de 30 mois à compter de la date de priorité (règle 44bis.2), sauf si le déposant a présenté une requête expresse à cet égard en vertu de l'article 23.2).

Bureau international de l'OMPI 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Date d'établissement du présent rapport 01 May 2006 (01.05.2006)
no de télécopieur +41 22 740 14 35	Fonctionnaire autorisé <div style="text-align: center; font-weight: bold; margin-top: 10px;">Beate Giffo-Schmitt</div> no de téléphone : +41 22 338 87 20

# PATENT COOPERATION TREATY

Translation

From the  
INTERNATIONAL SEARCHING AUTHORITY

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing  
(day/month/year)

Applicant's or agent's file reference

**CP61017**

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

**PCT/FR2004/001528**

International filing date (day/month/year)

**18.06.2004**

Priority date (day/month/year)

**19.06.2003**

International Patent Classification (IPC) or both national classification and IPC

Applicant

**UNIVERSITE PARIS 5**

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input type="checkbox"/>            | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input checked="" type="checkbox"/> | Box No. VII  | Certain defects in the international application   |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application  |

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/001528

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

\_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☒

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☒

in written format

☐

in computer readable form

c. time of filing/furnishing

☒

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/001528

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims		YES
	Claims	1-5	NO
Inventive step (IS)	Claims		YES
	Claims	1-5	NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

2. Citations and explanations:

Reference is made to the following documents:

D1: US-A-5 650 389

D2: WO 00/40278 A

D3: US-B1-6 579 978

D4: WO 01/43789 A

D5: FISCHER JENS W ET AL: "Local expression of bovine decorin by cell-mediated gene transfer reduces neointimal formation after balloon injury in rats" CIRCULATION RESEARCH, vol.86, no.6, 31 March 2000, pages 676-683.

*Novelty*

D1 (claims 14,15,17) discloses the use of decorin in a coating for a medical device, such as a catheter or an implant. D1 anticipates the subject matter of claims 1-5.

D2-D4 disclose coating for prostheses comprising various types of extracellular matrix (fibronectin, hyaluronic acid) inhibitors. The subject matter of claims 1,3 and 5 is thus not novel in relation to documents D2-D4.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/001528

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

*Inventive Step*

Even if, after amendment, the subject matter of an independent claim should be novel, said claim would not necessarily involve an inventive step. Based on the definition of the technical problem to be solved as mentioned in the present description (page 2, line 26 - page 3, line 6), said technical problem is defined as being that of providing prostheses capable of preventing arterial restenosis.

There are no experimental data in the description as filed that make it possible to affirm that the technical problem is solved by all the variants claimed or, at least, by the preferred example.

D5 already discloses the positive effect of decorin on the size of atherosclerotic lesions and it thus appears to be obvious to a person skilled in the art to combine the information disclosed in the combination of documents D1-D4 (considered to be the closest prior art) with D5 in order to solve the technical problem.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/001528

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Contrary to the requirements of PCT Rule 5.1 (a)(ii), the relevant prior art disclosed in documents D1-D6 is not mentioned in the description, nor are these documents identified therein.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/FR2004/001528

Box No. VIII      Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The subject matter of claims 1-5 is not clear (PCT Article 6) because of the use of the expression "biological platform " and of the expression "regulators" (claim 1) and "regulator of extracellular matrix synthesis". It should be noted that the expression "regulators" groups together both inhibitors and stimulators (of extracellular matrix synthesis).